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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,419	06/21/2001	Johan Scott	876.0003USU	7642

7590 05/02/2006
Paul D. Greeley, Esq.
Ohlandt, Greeley, Ruggiero & Perle, L.L.P
10th Floor
One Landmark Square
Stamford, CT 06901-2682

EXAMINER

PESIN, BORIS M

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

JP

Office Action Summary

Application No.

09/886,419

Applicant(s)

SCOTT, JOHAN

Examiner

Boris Pesin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed 02/09/2006.

Claims 1-8 and 10-43 are pending in this application. Claims 1, 22, 23, 27, 28, and 29 are independent claims. In the amendment filed 02/09/2006, none of the claims were amended. This action is made Non-Final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The Office notes that applicant did not contest any of the factual assertions set forth under Official Notice of the Office Action of 10/06/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 3, 5, 6, 7, 8, 14, 15, 17, 18, 19, 22, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al. (US 6435969).

In regards to claim 1, Tanaka teaches a method of selecting an object by controlling movement of a focus on a graphical display comprising receiving a signal for moving the focus in a given direction (i.e. Column 20, Lines 40-59); providing, in response to receiving said signal, predefined acceleration data for accelerating said focus in said given direction (i.e. Column 20, Lines 60-66); determining a position of the focus on the graphical display as a function of said acceleration data (i.e. Column 20, Lines 60-66); and displaying the focus at said position (i.e. Column 20, Lines 40-59). Tanaka further teaches receiving a signal from a dual-state button having a single depressed state, for moving the focus in a given direction (i.e. Column 20, Lines 60-66).

In regards to claim 2, Tanaka teaches a method further comprising determining an acceleration of the focus as a function of the acceleration data (i.e. Column 20, Lines 60-66).

In regards to claim 3, Tanaka teaches a method further comprising determining a velocity of the focus in dependence upon the acceleration (i.e. Column 20, Lines 60-66).

In regards to claim 5, Tanaka defines a metric system (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 6, Tanaka teaches a method, further comprising updating the acceleration using some or all of the acceleration data (i.e. Column 20, Lines 60-66), updating a velocity and position of the focus and displaying the focus at the updated position (i.e. Column 20, Lines 60-66).

In regards to claim 7, Tanaka teaches a method further comprising determining whether the velocity of the focus exceeds a predefined maximum (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 8, Tanaka teaches a method, further comprising limiting the velocity of the focus if it exceeds a predefined maximum (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 14, Tanaka teaches a method wherein the focus is a pointer (i.e. Column 20, Lines 40-59).

In regards to claim 15, Tanaka teaches a method wherein the focus is a part of a page content (i.e. Column 20, Lines 40-59).

In regards to claim 17, Tanaka teaches an electronic apparatus configured to carry out the method according to claim 1 (Figure 1).

In regards to claim 18, Tanaka teaches a data processing apparatus configured to carry out the method according to claim 1 (Figure 1).

In regards to claim 19, Tanaka teaches a multimedia home product apparatus configured to carry out the method according to claim 1 (Figure 1).

Claim 22 is in the same context as claim 1; therefore it is rejected under similar rationale.

Claim 29 is in the same context as claim 1; therefore it is rejected under similar rationale.

In regards to claim 30, Tanaka teaches a method wherein providing predefined acceleration data for accelerating said focus in said given direction comprises adding at

least one data value to a buffer of acceleration data values (i.e. Column 20, Lines 60-66).

In regards to claim 31, Tanaka teaches a method wherein providing predefined acceleration data for accelerating said focus in said given direction comprises updating a buffer of acceleration data values (i.e. Column 20, Lines 60-66).

In regards to claim 32, Tanaka teaches a method comprising reading out a data value at a front of said buffer and calculating a velocity and a position of said focus using said data value (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 33, Tanaka teaches a method wherein said buffer is updated whenever a signal from said dual-state button is received (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 34, Tanaka teaches a method wherein reading said data value and calculating said velocity and said position is repeated every time a frame on said display is updated (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 35, Tanaka teaches a method wherein acceleration data is in the form of impulse data (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 36, Tanaka teaches a method wherein determining the position of the focus on the graphical display includes calculating the velocity (i.e. Column 20, Lines 60-66).

In regards to claim 37, Tanaka teaches a method wherein calculating said velocity comprises adjusting said velocity for friction so as to reduce said (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 38, Tanaka teaches a method wherein said input device further comprises a second dual-state button for moving the focus in another, different direction (i.e. Column 20 Line 45 – Column 21 Line 17) and wherein the method further comprises: receiving another signal from said dual-state button (i.e. Column 20 Line 45 – Column 21 Line 17); providing, in response to receiving said other signal, other predefined acceleration data for accelerating said focus in said other, different given direction (i.e. Column 20 Line 45 – Column 21 Line 17); determining a position of the focus on the graphical display as a function of said acceleration data (i.e. Column 20 Line 45 – Column 21 Line 17).

In regards to claim 39, Tanaka teaches a method wherein providing predefined acceleration data for accelerating said focus in said other given direction comprises adding at least one data value to another, different buffer of acceleration data values (i.e. Column 20 Line 45 – Column 21 Line 17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 6435969) in view of Bird et al. (US 6323884).

In regards to claim 23, Tanaka discloses a method of selecting one of a plurality of objects on a graphical display using a focus, the method comprising receiving a signal to move the focus (i.e. Column 20 Line 45 – Column 21 Line 17), determining a direction of motion of the focus (i.e. Column 20 Line 45 – Column 21 Line 17), and receiving a signal from a dual-state button having a single depressed state (i.e. Column 20 Line 45 – Column 21 Line 17). Tanaka does not teach determining in dependence upon said direction of motion which of one plurality of objects is the intended destination of the focus and highlighting one object for selection. Bird teaches determining in dependence upon said direction of motion which of one plurality of objects is the intended destination of the focus (i.e. “automatically moving the pointer to that destination”, Column 2, Line 7) and highlighting one object for selection (i.e. “adds emphasis such as a highlight colour or animation of the selected button”, Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings of Bird and include a method of determining in dependence upon said direction of motion which of one plurality of

objects is the intended destination of the focus and highlighting one object for selection with the motivation to provide the user a simpler way of selecting desired objects.

In regards to claim 24, which is dependent of claim 23, Tanaka and Bird disclose a method wherein the determining of which one of said plurality of objects is the intended destination comprises determining which of said objects is closest to the focus (i.e. "...nearest selectable GUI element to the user-indicated position will typically be identified in the prediction result", Bird, Column 9, Line 9).

In regards to claim 25, which is dependent of claim 23, Tanaka and Bird disclose a method wherein the determining of which one of said plurality of objects is the intended destination comprises determining which of said objects substantially lies in the path of the direction of motion (i.e. "In an alternative embodiment which determines a region of the GUI towards which the user is moving a pointing device based on the initial position and direction", Bird, Column 9, Line 24).

In regards to claim 26, which is dependent of claim 23, Tanaka and Bird disclose a method wherein the determining of which one of said plurality of objects is the intended destination further comprises defining a metrics system (i.e. Tanaka Column 20 Line 45 – Column 21 Line 17).

Claim 27 is in the same context as claim 23; therefore it is rejected under similar rationale.

Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 6435969).

In regards to claim 16, Tanaka does not teach a method according to claim 1 wherein the focus is a window. However, official notice is given that it is well knownⁿ in the art to implement a method according to claim 1, wherein the focus is a window. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and include a method wherein the focus is a window with the motivation to provide more data on the screen simultaneously. ^{KK}

In regards to claim 20, Tanaka does not specifically teach a personal computer apparatus configured to carry out the method according to claim 1. However, official notice is given that it is well knownⁿ to have a personal computer apparatus configured to carry out the method according to claim 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and have a personal computer configured to carry out the method of claim 1 with the motivation to provide more processing power and faster access times. ^{KK}

Claims 4, 28, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 6435969) in view of Bird et al. (US 6323884).

In regards to claim 4, Tanaka teaches all the limitations of claim 1. Tanaka does not teach a method comprising determining in dependence upon the direction of motion of focus whether an object is the intended destination of the focus and highlighting object for selection. Bird teaches a "... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then automatically moving the pointer to that destination." (Column 2, Line 6). He further teaches that his invention "adds

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emphasis such as a highlight colour or animation of the selected button”(Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 28, Tanaka teaches, as per claim 1, a method of selecting an object by controlling movement of a focus on a graphical display using an input device having a dual-state button for moving the focus in a given direction, the method comprising: receiving a signal from said dual-state button; providing, in response to receiving said signal, predefined acceleration data for accelerating said cursor in said given direction; determining a position of the focus on the graphical display as a function of said acceleration data; and displaying the focus at said position. Bird teaches “... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then automatically moving the pointer to that destination.”(Column 2, Line 6). He further teaches that his invention “adds emphasis such as a highlight colour or animation of the selected button”(Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 40, Tanaka teaches all the limitations of claim 1. Tanaka does not teach determining a distance between the focus and the object as a radius

using a coordinate system that is rotated and compressed in a direction of movement of said focus; and if said object has the smallest determined radius, marking said object as a selected object. Bird teaches "... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then automatically moving the pointer to that destination." (Column 2, Line 6). He further teaches that his invention "adds emphasis such as a highlight colour or animation of the selected button" (Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 41, Tanaka and Bird teach all the limitations of claim 40. Tanaka does not specifically teach rotating the coordinate system so that it becomes aligned with the direction of said velocity. However this feature is inherent in Tanaka. If a user was to play a three dimensional game using Tanaka's invention, the screen would rotate according to the direction of the velocity of the user.

Claims 10, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable Tanaka et al. (US 6435969) in view of Yamada (US 5874941).

In regards to claim 10, Tanaka teaches all the limitations of claim 1. Tanaka does not specifically teach the method of adding a first set of acceleration data to a second set of acceleration data. Yamada teaches a method for "adding the first and second cursor moving values [acceleration] to first and second cursor values

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corresponding to the position of the cursor displayed at present.”(Column 3, Line 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings of Yamada to include a way to add sets of acceleration data together with the motivation to provide for efficient movement in response to a user movement of the cursor.

In regards to claim 11, Tanaka and Yamada teach “the acceleration signal is controlled to be zero [i.e. predefined] when the pointer is stopped” (Yamada, Column 8, Line 52).

In regards to claim 12, Tanaka and Yamada teach all the limitations of claim 10. They do not teach a method where determining the velocity comprises adding a first member of the acceleration data to a previously determined velocity. Official notice is given that velocity as a function of time is well known in the art as:

$v = v_0 + a t$ where v_0 is the initial velocity (at $t = 0$), v is the velocity of the object at time t and a is the acceleration. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and Yamada and use the function in order to calculate the velocity with the motivation to provide for efficient movement in response to a user movement of the mouse.

In regards to claim 13, Tanaka and Yamada teach “the acceleration signal is controlled to be zero [i.e. predefined] when the pointer is stopped” (i.e. Tanaka Column 20 Line 45 – Column 21 Line 17).

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable Tanaka et al. (US 6435969) in view of Bird et al. (US 6323884) and further in view of Rutledge et al. (US 5764219).

In regards to claim 42, Tanaka and Bird teach all the limitations of claim 41. They do not teach a method further comprising compressing said coordinate system in direction of said velocity by a compression factor $k/(|v| + 1)$, where $|v|$ is the speed of the focus and the k is the scaling constant. Rutledge teaches, "The coordinate of this graph is cursor velocity, the abscissa is force, in percent of the corresponding scale factors. The velocity scale factor (multiplier of v in the above formulas) is 1500 pixels/second, or on a screen, 66 cm/second." Column 3, Line 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and Bird with the teachings of Rutledge and include a method of changing the coordinate system with the motivation to provide for a convenient method of reducing image size and providing improved control of a pointing device.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 6435969) in view of Ghisler (US 5953657).

In regards to claim 21, Tanaka does not teach a mobile telephone handset configured to carry out the method according to claim 1. Ghisler teaches, "The display 1100 is a liquid crystal display showing alphanumeric text 1101-1104 and a two-arrow cursor 1105. The cursor control 1108 allows cursor movements or scrolling up and down in the text." Column 15, Line 63; this is implemented on a handheld telephone). It

would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka with the teachings of Ghisler and include a mobile telephone handset carry out the method according to claim 1 with the motivation to provide more portability, accessibility, and functionality to the user.

Claims 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 6435969) in view of Bird et al. (US 6323884) further in view of Osga (US 5757358).

In regards to claim 43, Tanaka and Bird teach all the limitations of claim 23. They do not teach a method further comprising moving said focus to a new position, displaying said focus at aid new position and highlighting said one object for selection without moving said focus to said object. Osga teaches, "Once an operator has placed his cursor in the area closest to an object he will at once be notified of this as the object will become visually identified as being "selectable." A selection confirmation action by the computer-user, such as the pressing of a mouse button, would select the "selectable" object. This action would be made known to the computer-user as the object will become visually identified as being "selected"." (Column 3, Line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Tanaka and Bird with the teachings of Osga and include a method to select an object without actually having the pointer placed on top of the object with the motivation to provide the user with a decrease the time needed for cursor placement tasks.

Response to Arguments

Applicant's arguments, see Pages 2-10, filed 2/09/2006, with respect to the rejection(s) of claim(s) 1-8 and 10-43 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tanaka et al. (US 6435969).

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BP

Kristine Kincaid
KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100